FMU 010 LSR/ FS/ Cascades

FMU Identifier: Late Successional Reserve/ Forest Service/ Cascades
FMU Number: 010
General Risk Category: Moderate
Fire Behavior Indicator: Energy Release Component based on National Fire Danger Rating System (NDFRS[42]) Fuel Model G
NFDRS Weather Station: Toketee, Granddad, Pickett Butte
Acres: 304,860
Ecoregions: Level III - Cascades Level IV – 4f Umpqua Cascades; 4b Western Cascades Montane Highland
Predominant Vegetation Type: White fir, western hemlock, Pacific silver fir, mountain hemlock and Douglas-fir.
Communities at Risk Within or Adjacent to this FMU: Dry Creek and Steamboat

FMU Characteristics

FMU 010 consists of primarily National Forest System lands within the late successional reserve land allocation, with a very small amount of private land in-holdings. A designated Roadless area occurs within this FMU, and there are two National Fire Plan communities within its boundaries. These communities are incorporated into FMU 012. The primary land uses in this FMU are forestry and recreation.

The Ecoregion is primarily Cascades (Umpqua Cascades subdivision) with a small portion to the north in the Western Cascades Montane Highlands subdivision. Its highly dissected mountains with a few small lakes and high to medium gradient streams and rivers characterize the Umpqua Cascades subdivision. It is a transitional zone between the lush moist forests of the Ecoregions to the north and the drier forests of the Southern Cascades and Klamath Mountains to the south. The elevation ranges from 1000 to 5300 feet. The Western Cascades Montane Highlands subdivision is composed of steep glaciated mountains that have been dissected by high-gradient streams. The elevation ranges from 2800 to 5900 feet.

Natural vegetation consists of grand fir, white fir, western hemlock, Pacific silver fir, Douglas-fir, some Shasta red fir and mountain hemlock. The Western Cascades Montane Highlands is higher in elevation, and is snow influenced. The High Southern Cascades differ in vegetation, and consists of mountain hemlock, lodge pole pine and Pacific silver fir.

Soils are very deep to moderately deep, clay loam, gravelly clay loam, gravelly silt loam, very gravelly loam, extremely gravelly loam and cobbly loam in the north and south designations of FMU 010 on the Umpqua NF.

Summers in the Umpqua Cascades are warm and dry with temperatures reaching into the eighties. The climate in the Southern Cascades is drier than other subdivisions in the

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[42] **Refer to Table 12, NFDRS and Fire Behavior Fuel Models Relationships**

Cascades. The Western Cascades Montane Highlands has lower temperatures with a deep annual snow pack.

Strategic and Measurable Management Objectives

Strategic Objectives

- Human life, firefighter, and public safety are the highest priority and will drive all wildland fire and fuels treatment actions.
- Contain unwanted fires at the smallest possible size using appropriate suppression response.
- Minimize the impacts of wildfires on ecosystem management objectives, consistent with economic efficiency.
- Prioritize fires when multiple starts occur on the forest. The LSR will fall below general forest and urban interface in priority.
- Ecosystems are restored and maintained consistent with land uses and historic fire regimes, prescribed fire and mechanical fuel treatments.
- Protect high value resources through mechanical fuel treatments and prescribed fire.
- Increase the number of acres treated annually by prescribed fire and mechanical treatment to meet hazardous fuels reduction objectives.
- Encourage and participate in partnerships with citizens or community-centered approaches to manage fire risks and hazards in wildland/urban interface areas.
- Assess the potential impacts of wildland fire actions on spread of invasive species.
- Create fuel breaks in priority one and three areas (Ref. 2003 Watershed Restoration Business Plan) to help protect existing old growth habitat.

Measurable Objectives

- Contain all wildland fires to the smallest manageable size given the available resources.
- Implement fuel break treatments in the Blitzen/Williams Facial, Apple Creek Facial, Illahee/Soda Springs and Brice Creek areas.
- Implement hazardous fuel reduction projects on 100 acres of condition class two federal lands, located within fire regimes I and III, that will provide enhanced protection of late seral habitat.
- Implement 100 acres of vegetation manipulation treatment in 10 to 20 year-old conifer plantations to move them towards a more fire resilient condition.

Management Constraints Affecting Operational Implementation[43]

FMU 010 includes the following LRMP Management Areas (MA's) and the constraints specific to operational implementation. The following mitigation measures apply to all management areas:

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[43] ***LRMP/ROD management area prescriptions, standards and guidelines***

- Live trees should not be cut unless it is determined that they will cause fire to spread across the fire line, or may present a hazard to workers.
- Include a qualified Resource Advisor as a position in the District initial attack organization. This person should be familiar with the area and its resource values, and have a thorough knowledge of the Standards and Guidelines of the Northwest Forest Plan.
- Wood should not be bucked or removed from stream channels.
- Locate incident bases, fire camps, helibases, staging areas and other facilities outside riparian areas.
- Initiate BAER Assessment on wildfires greater than 300 acres to protect life property or resources.

MA 1 Semi-primitive Unroaded Recreation (Fish/Skimmerhorn, Lower Castle Rock, Twin Lakes, Donegan-Neal and Bulldog Rock)

- Confine or contain wildfires. Utilize control strategy when appropriate.
- Prohibit off-road vehicle travel and fire line construction with tractors on wildfires, except through the WFSA process.
- On wildfires, use methods that minimize impacts on adjacent use areas, water bodies and travel routes.
- Prescribe fire on natural fuels permitted to the extent needed to meet Recreation Opportunity Spectrum objectives.

MA 9 Resource Natural Area (Limpy Rock)

- Fires endangering the boundaries of research natural areas should be suppressed while still outside the RNA using appropriate suppression responses.
- This RNA was established primarily due to its unique vegetation. Sites for several TES plants should be protected from damage from all suppression activities.

MA 10 Timber

- Appropriate suppression response will be used. Fire suppression is encouraged.
- Special precautions for recreation use need to be addressed in a WFSA.
- Minimize damage to riparian vegetation during wildfire and prescribed fire activities.
- Firelines should be constructed outside the riparian reserve.
- During slash disposal burning, protect riparian vegetation adjacent to streams.
- Minimize soil disturbance. Hand and machine fire lines should not be used to control fires within unique and mosaic habitat areas.
- Broadcast burning will be designed to prevent reduction in site productivity.
- Detection activities will be intensified during critical fire periods.
- Minimize delivery of chemical retardant, foam or additives to surface waters and riparian habitat.

MA 11 Big Game Winter Range

- All MA 10 constraints apply to MA11.
- Broadcast burning is the preferred slash disposal technique.

MA 12 Wild and Scenic Rivers (Steamboat Creek and its tributaries)

- During both prescribed fire and wildfire activities, minimize damage to riparian vegetation.
- Fireline construction should take place outside riparian reserves.
- Measures must be taken to prevent burning riparian vegetation during slash disposal operations that occur in the vicinity of streams.
- Rehabilitation after fire suppression ground disturbing activities must be planned, including erosion control, channel storage structures and stream bank stabilization.

Late Successional Reserve (LSRA #R0222)

- Design fire suppression strategies, practices and activities to meet aquatic conservation strategy objectives. Refer to the Northwest Forest Plan (NWFP) for further information.
- Avoid building control lines in riparian reserves.
- Where possible, use existing roads and natural fuel breaks for control lines.
- Construct firelines only wide and deep enough to check fire spread. Consider use of cold trailing and wet line to lessen impacts.
- Use burnout to enhance firefighter safety and to minimize the amount of acres lost to high intensity fire.
- Consider rapidly extinguishing smoldering large woody material and duff.
- Minimize impacts of suppression activities near spotted owl nest sites.
- Locate and manage water-drafting sites to minimize adverse effects on riparian habitat and water quality.
- Minimize bucking and cutting of trees when building fire line.
- Consider allowing trees and snags to burn out instead of falling them, provided they do not pose a significant safety risk or contribute to spotting outside the fire line.
- Locate portable pumps to minimize the risk of fuel spills entering streams, ponds or other areas containing water.

Management Constraints Related to Wildland Fire Suppression and Fuels Treatment

- Before entering private land or affecting private facilities, and during suppression actions, work with private landowners to obtain permission to cross private land, cut fences or use privately owned facilities (i.e. ditches, water sources, etc.).
- Assign a qualified archeologist or resource specialist as a resource advisor to any wildland fires potentially or actually burning in areas with a high probability of heritage resource sites.
- Coordinate with resource specialist regarding management constraints for:
  - Special status plants and animals
  - Minimum Impact Suppression Tactics (MIST) within late successional habitat
  - Wild and Scenic, Resource Natural Area, and semi-primitive roadless areas.
- Initiate emergency consultation for listed Threatened or Endangered Species.

Management Constraints Specific to Wildland Fire Use

Wildland Fire Use is not a tool available for this planning unit, so will not be planned or implemented at this time.

Historic Fire Occurrence

The southwest Oregon area experiences moderate fire activity, mainly associated with lightning ignitions during the summer months. Detailed statistics regarding historic fire activity may be found in Appendix C.

Fire Management Situation

Weather patterns influencing fire behavior and historical weather analysis.

- Historic lightning patterns track north from the Siskiyou Mountains.
- Fall east wind events (foehn winds) can result in extreme fire behavior late in the fire season (September – October).

Fire season determination.

Historical analysis has determined fires typically occur from early June through late October. Most fires occur in July, August and September, and are associated with lightning.

Fuels conditions likely to influence fire behavior.

The primary fuel type is closed canopy timber stands of short and long needle conifers or hardwoods. Slow burning ground fires with low flame heights are typical, with occasional flare-ups where heavy fuel concentrations are encountered.

Fragmentation of conifer stands due to timber harvest, the relatively densely planted stands of conifers, and past site preparation and pre-commercial thinning activities contribute to variations in the spread and effects of fire across the landscape.

The white fir, western hemlock and Douglas-fir plant association groups are at risk due to increased understory densities of shade tolerant species and an increase in mortality due to insect and disease infestation. Dead-down fuels include greater quantities of three-inch or larger limb wood that creates a large load of dead material on the forest floor. Crowning, spotting and torching of individual trees occur more frequently.

Fire Regime Current Condition for FMU 010

Fire Regime	Area	% of total area
I	43,061	14.12
II	3,345	1.10
III	171,063	56.10
IV	14,787	4.85
V	72,661	23.83
	Total: 304,917	

Control problems and dominant topographic features.

Potential control problems:

- Slow response time within roadless areas
- Increased fuel loads due to past large fires

Dominant topographic features:

- Highly dissected mountains with medium gradient streams and rivers
- Prominent ridge system dividing the North and South Umpqua drainages
- Elevations above 4100 feet influence fire behavior; fire activity decreases and spread slows

Firefighter and public safety considerations.

- Potential need for traffic control and possible evacuation coordination.
- Access in and out of area.
- Hazard tree safety.
- Minimal opportunities to utilize natural or created opening for safety zones.
- Developed campgrounds.
- High-use roads may become congested during suppression events.
- Steep, rocky terrain.

Fire prevention and education opportunities.

- Maintain fire prevention signing in accordance with agency prevention plan.
- During high use periods, visitor contacts are essential.
- Active dissemination of fire restriction information and forest user contacts.
- Fire prevention awareness activities with local schools each spring.

Values to be protected (TES, Cultural, etc.)

100 Acre LSR's:

- During wildfire and prescribed fire activities, minimize damage to vegetation within 100-acre LSR's.
- Consider allowing trees and snags to burn out instead of falling them.
- Machinery such as tractors will only be used to control fires within the 100-acre LSR with appropriate line officer approval.

Wildlife Mitigation Measures

There are several Forest sensitive aquatic amphibian species (Torrent Salamander, Foothill Yellow-legged Frog, Oregon Spotted Frog) that inhabit all streams classes, ponds and wet areas. Additionally the Western Toad, Tailed, Red-legged, and Cascade Frogs are state sensitive species. These species are strongly associated with the aquatic environment in all life stages. In winter months adults may disperse some distance from stream habitat. However, during hot dry summer months they may be found in close proximity to streams, ponds or wet areas. The use of chemical retardant and foam is known to have adverse effects on these species, and should be avoided in all riparian reserves.

Northwest Pond Turtles inhabit class III, II and I streams and ponds. Impacts may occur from dipping or drafting water from ponds, especially when water levels become low and turtles are concentrated in a smaller area.

Protect known Northern Bald Eagle nest trees and roost sites. Disturbances adjacent to known American Peregrine Falcon nest sites may impacts nesting and rearing activities if those disturbance activities occur in the spring or early summer months. Protect 100 acre LSR's that are Northern Spotted Owl activity centers.

Aquatic Mitigation Measures

The following measures may be implemented within Wilderness Areas with appropriate line officer approval.

Fireline construction/aerial retardant use:

- Dozer line limited to slopes < 35% and Resource Advisor approval
- Dozer line in inventoried roadless areas requires Forest Supervisor approval
- No dozer line in riparian reserves or on rocky ground.
- Rehabilitate dozer line
- Don't build lengthy hand line parallel to streams within riparian reserves); instead, use creek as fire line. Don't buck in-stream logs.
- If possible, allow fire to back toward creek rather than lighting burnouts from edge of stream.
- No aerial retardant delivered within 300 feet of streams.

Mop up/water use:

- Don't use firefighting foam within 30 feet of streams or in wetlands.
- Store extra gas cans at least 20 feet from stream, and on spill pans or absorbent pads.
- Place water pumps and gas cans in spill pans or on absorbent pads when operating in and near creeks.
- Minimize falling snags in riparian reserves. If falling is required for safety reasons, fall into stream if possible.
- All foot valves have to be screened with a 3/32nd inch screen mesh.
- Don't take more than ½ flow of streams when pumping from small streams; use the largest water source possible.
- Off-forest tenders and engines need to have their tanks flushed and sterilized prior to deployment on the line to reduce the risk of transmission of disease, exotic snails or mussels.

Cultural Resources

Cultural resources on lands administered by the Federal Government are protected under federal mandate including the Archaeological Resources Protection Act of 1979, as amended, and the National Historic Preservation Act of 1966 (as amended 1990). Cultural resources affected by federally funded undertakings such as fire suppression activities require consultation with the Oregon State Historic Preservation Officer. Mitigation of the effects of suppression activities on cultural resources may be required. The archaeologist will treat wildland suppression activities as an undertaking as per

section 106 of the National Historic Preservation Act (36 CFR 800.12(2)) and will follow the prescribed course of action.

Consultation with the appropriate American Indian Tribes and interested publics will be completed by the Forest Tribal Liaison. The Confederated Tribes of the Grand Rhonde Reservation, Confederated Tribes of the Siletz Reservation, and the Cow Creek Band of Umpqua Tribe of Indians will be contacted through each tribe's established cultural committee as soon as possible after the extended attack phase has been established. Consultation will seek to establish the opportunities for comment, procedures for objection and resolution of the objections.

Cultural resources may be discovered or are recorded within this FMU. Recorded cultural resources include cultural peeled ponderosa pine trees, lithic scatter sites, cairn or vision quest sites and traditional use areas. The Umpqua National Forest archaeologist will provide specific guidance for avoidance of archaeological and historic resources, and the treatment of traditional resources in this FMU. The following guidelines will be followed during suppression and restoration activities:

- The resource advisor will have current information and GIS maps of all high probability locations for cultural resources and information pertaining to specific site locations.
- To ensure protection of sensitive site locations during the wildland fire briefings, specific locations for archaeological sites will be shared on a need-to-know basis. General locations will be provided during briefings.
- A qualified archaeologist shall be assigned as a resource advisor to any wildland fire with potential to impact areas with a high probability of archaeological resources.
- The Forest probability maps will be consulted and, if needed, proposed locations for fire lines, fire camps, helibases, staging areas, drop points, safety zones and all other similarly habitat-disturbing activities that have the potential to impact cultural resources will be inspected by an archaeologist prior to the activity. The archaeologist will seek opportunities to avoid or minimize impacts to archaeological sites.
- Archaeological sites should be avoided to the extent possible and the impacts to the sites should be minimized during fire suppression and restoration activities.
- Hand line construction and burning methods that minimally disturb the ground is preferred in high probability areas.
- Protection of historic structures may include wrapping structures with fire protective material, removing or clearing away flammable fuels, applying foam, installing sprinkler systems, constructing line and burning out, or using aerially delivered retardant or foam.
- Do not rehabilitate hand line or dozer line in or near lithic scatters or cairns without consulting the assigned archaeologist.
- If culturally peeled ponderosa have to be felled, the cut should be above or below the peeled scar.

- The resource advisor will be informed of all cultural resources located by field crews. Potential impacts will be recorded. This information will be made available to the Forest archaeologist as soon as possible.

Threatened, Endangered and Sensitive Plant Considerations

Fire suppression activities should avoid known sites of threatened, endangered, and sensitive (TES) plants. Fire suppression resources will receive guidance from each individual Ranger District.

- The resource advisor should have current information and GIS maps of all TES plant sites.
- Fire camps, helibases, staging areas, drop points, safety zones and all other habitat-disturbing activities should not be located at TES plant sites.
- A strategic network of such sites should be pre-identified in order to minimize inadvertent damage to TES plant sites during initial attack.
- Fire control lines should avoid TES plants sites and, to the degree practical, TES plant habitat (these areas often represent unique habitats as well).
- Water drafting sites should not be located at TES plant locations.
- Prescribed burning or fuels treatments adjacent to TES plant locations should not adversely alter microclimatic conditions at the TES plant site.
- TES plants inadvertently damaged during fire suppression should be restored as appropriate during fire rehabilitation.
- Water should be avoided at sites of TES lichens and bryophytes if possible because they are more sensitive to heat when hydrated than when dormant. Retardant should be avoided at these sites as well since these organisms are extremely sensitive to environmental pollutants.

Recreation

Forest recreation sites are depicted on the FMU maps. Maps of trails are available at Forest offices.

Proposed hazard fuels treatment or prescribed burns.

Hazardous fuels reduction (HFR) projects include the Dry Creek HFR, Roadside HFR, and pre-commercial thinning piling.

Other elements of the fire environment affecting management (smoke management).

Contribute to meeting National Ambient Air Quality Standards and Prevention of Significant Deterioration standards established under the federal clean Air Act (42 USC 7401 et seq.). Refer to the smoke management discussion in chapter four of this FMP.

Other special concern area.

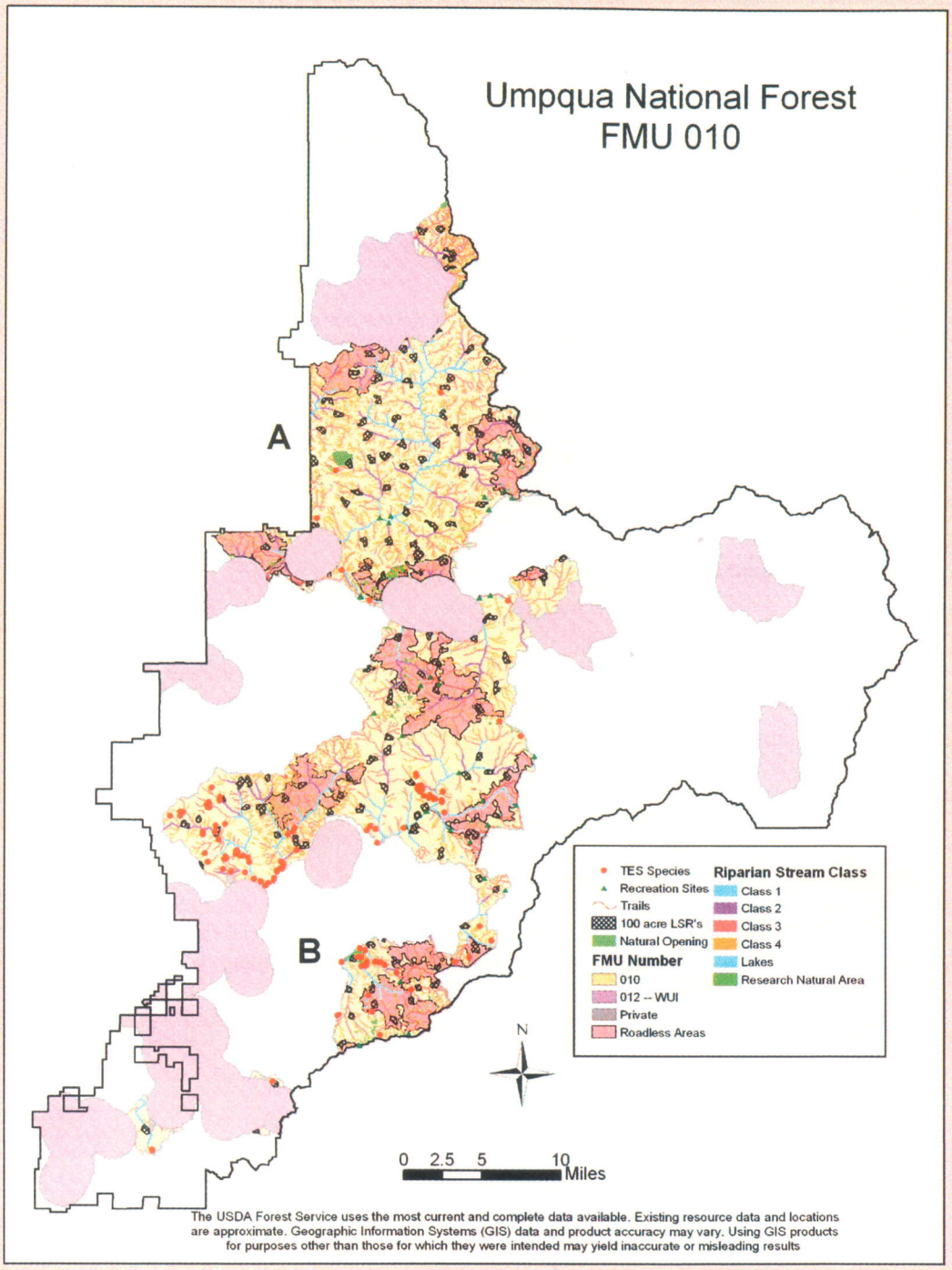
Prevention Measures for Noxious Weeds

- Avoid or remove sources of weed seed and propagules to prevent new weed infestations and the spread of existing weeds
- Ensure that rental equipment is free of weed seed and propagules before the Contracting Officer's Representative accepts it.

- Maintain a network of airports, helibases, camps and staging areas in a noxious weed-free condition.
- Vehicles and heavy equipment should be cleaned, with particular attention to the tires and undercarriage, before moving onto the Forest.
- Inspect and treat weeds that establish at equipment cleaning sites after fire incidents.
- Fuels management activities should avoid opening the canopy over, or disturbing the soil adjacent to, existing weed-infested areas unless the weed site is being managed.
- Roadside noxious weeds along major travel routes should be treated as long as weed treatment doesn't unnecessarily delay fire suppression activities.
- Avoid parking vehicles or machinery on weed infestations by flagging sites off as soon as practical.
- Avoid creating soil conditions that promote weed germination and establishment.
- Use suppression tactics that minimize suppression-induced disturbances to soil and vegetation.
- Avoid moving water buckets from weed-infested lakes or ponds to water bodies that are not infested until buckets can be cleaned of seeds and propagules. (There is no hazard associated with using waters infested with aquatic weeds on terrestrial sites).

Incorporate weed prevention practices into fire rehabilitation project design and implementation:

- Evaluate weed status and risks in Burned Area Emergency Response (BAER) plans. When appropriate, apply for BAER and restoration funding.
- Seed and straw mulch to be used for burn rehabilitation should be free of weed seed. All seed should be noxious weed-free certified.
- Re-vegetation of disturbed sites, using locally adapted native species, should be considered if site-specific conditions suggest there is a high-risk of establishment or movement of noxious weeds.


Umpqua National Forest
FMU 010
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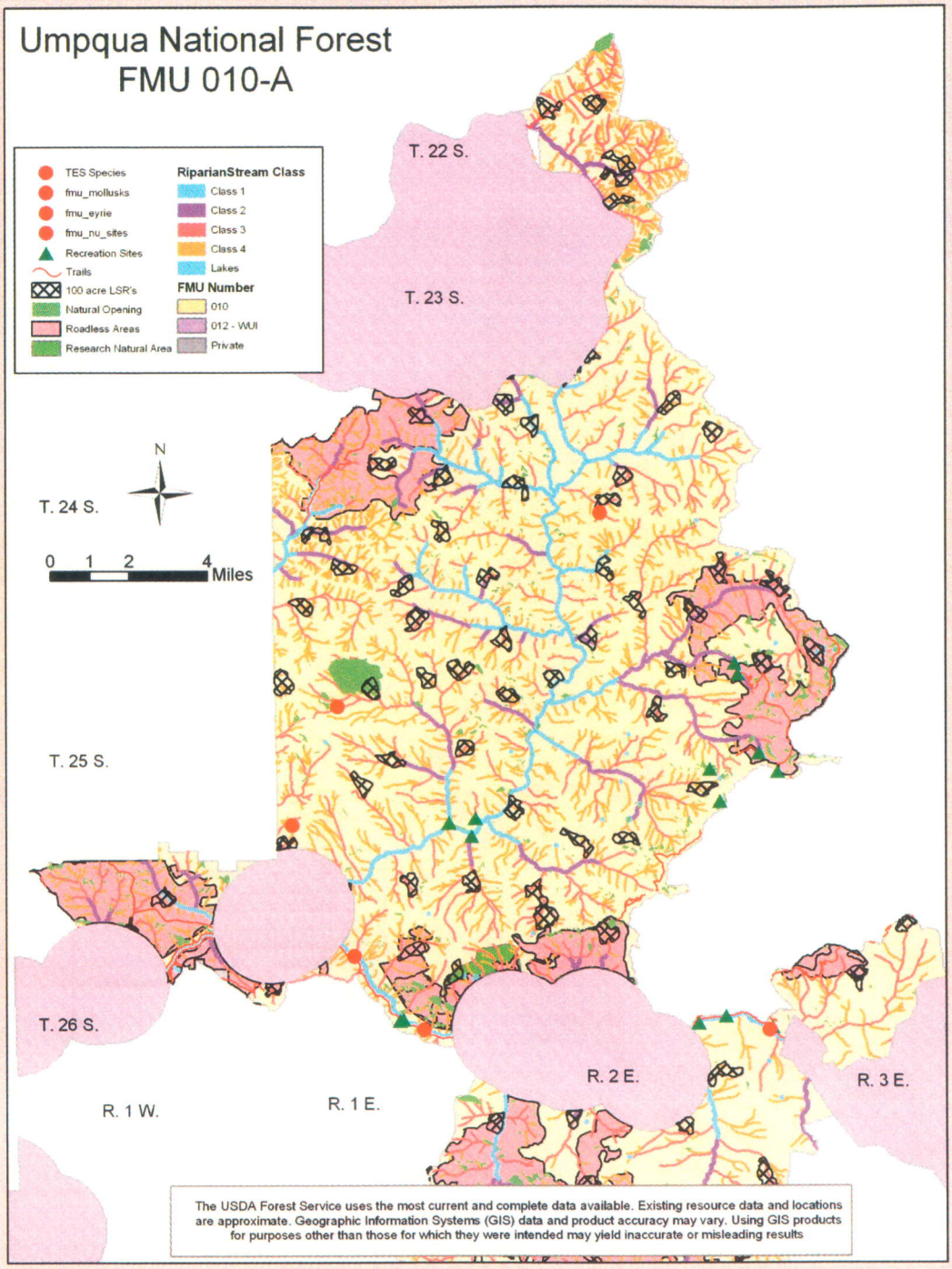
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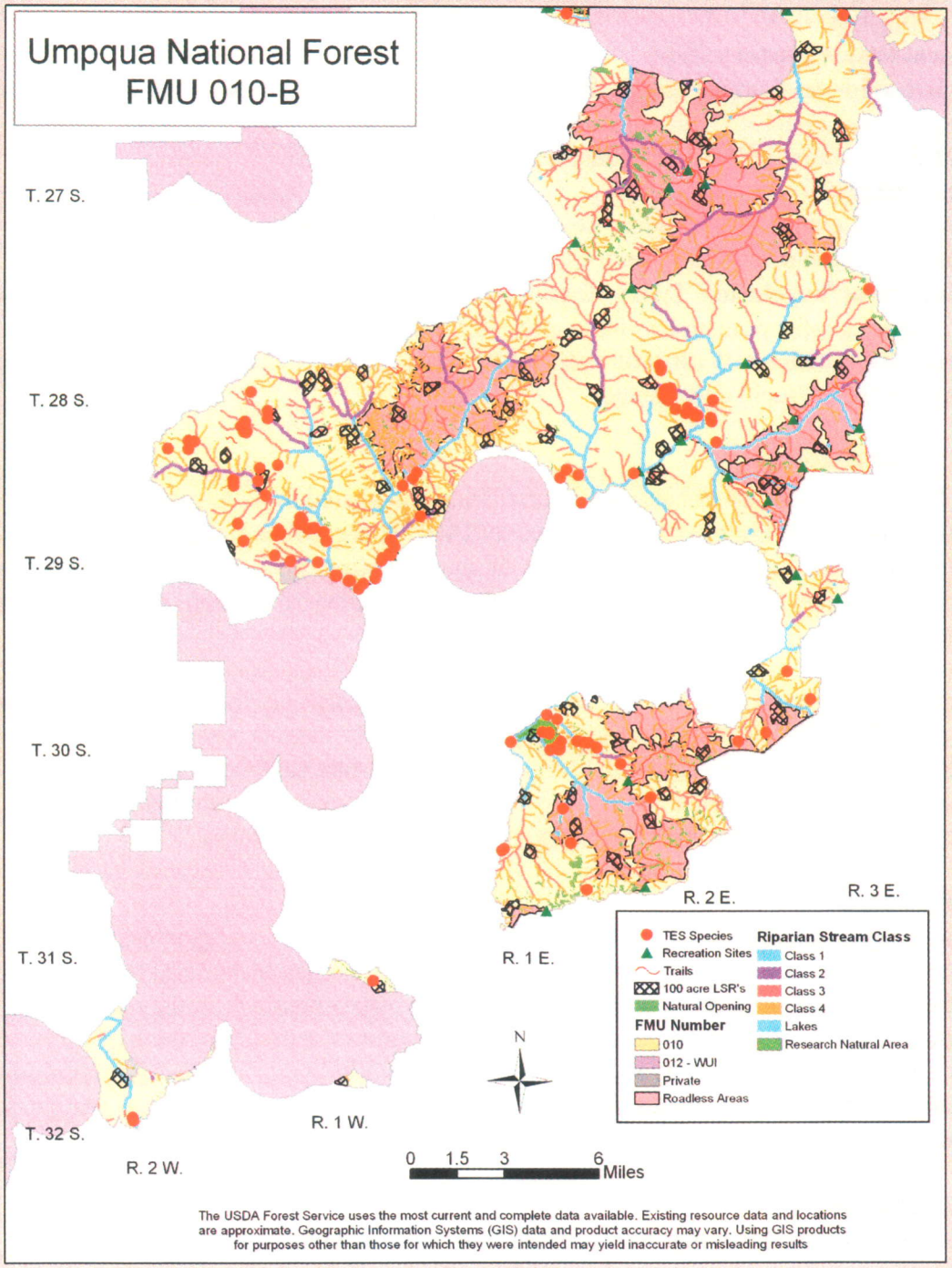
Umpqua National Forest
FMU 010-B
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